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An evaluation of the Pittsburgh Public Schools preprimary program for 2,000 disadvantaged children concluded that the program contributed to the socioemotional maturation of the children involved but did not affect their reading readiness or first grade reading test scores. This finding may be explained in part by a lack of specific academic achievement objectives in the program design. The evaluation processes also showed a need for a more detailed definition of desired teacher behavior. Each teacher was observed for 1 hour on two separate occasions in accordance with an observation schedule, to find out the number and kind of adult-child interactions in her classroom. Each child was rated by his teacher on the Children's Rating Scale developed in the Pittsburgh project. Analysis of the data led to the recommendation that more specific guidelines be established for classroom personnel concerning their duties, ways of reinforcing learning behavior, use of individualized instruction, and academic skill development. Over half of this report is made up of appendixes, which include a detailed description of the primary program and facsimiles of the rating scale and observation schedule. (MS)

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# PREPRIMARY PROGRAM
# 1968 REPORT

Office of Research

PS001548

Pittsburgh Public Schools
Bernard J. McCormick, Superintendent

# 6. PREPRIMARY PROGRAM


## Summary

The Preprimary Program was initiated in 1964 as a crucial first step in the Pittsburgh Board of Public Education's plans for a city-wide program of compensatory education for children from culturally and economically deprived neighborhoods. The program is designed to contribute to the physical, emotional, social, and intellectual development of disadvantaged three- and four-year olds in such a way as to improve their chances of succeeding in school.

Evaluation activities during the 1967-1968 school year focused on expansion of the program definition and on examination of the manner in which the program is being implemented in the field. Both a lack of specificity in those sections of the definition dealing with academic skills and teacher behavior and also variations in the operating program were identified as impediments to overall program effectiveness.

At present the major strength of the program appears to be the contribution it is making to the socioemotional maturation of participants; participants have done no better on standard reading readiness and first grade reading tests than disadvantaged children who did not participate in the program.

# Introduction

## History of the Program

The Preprimary Program in the Pittsburgh Public Schools provides three- and four-year olds from the city's poverty neighborhoods with a "head start" intended to improve their chances of succeeding in school. In broad terms the program seeks to contribute to the total development of these children by exposing them to a variety of learning experiences and activities in an environment which is appropriate to their age and background.

The Preprimary Program began in 1964 as a pilot project in one school, funded by the Ford Foundation. The program was expanded to seven schools that year financed by the Ford Foundation who committed themselves to the support of the program in 21 schools for three years. In 1965 the Office of Economic Opportunity assumed major responsibility for the program's financing, and the program has expanded steadily since. In the 1967-1968 school year it included 58 operating units attached to 45 elementary schools serving close to 2000 children. In addition to the mainline units, three units at Frick School were part of an experimental curriculum development project sponsored jointly by the General Learning Corporation, the University of Pittsburgh, and the Board of Public Education (see Appendix A for a list of all units).

Evaluation activities to date have concentrated on the development of instruments with which to measure the impact of the program on participants, an analysis of the program design, and an assessment of the manner in which the program is being implemented.

During the 1965-1966 school year, a brief examination of the nature and scope of the program was completed as well as preliminary designs for a rating scale and a diagnostic test with which to assess the strengths and weaknesses of individual children in the areas of socioemotional maturation and cognitive development. A longitudinal testing program, designed to determine the impact of the Preprimary Program on participants with below average verbal functioning, was also initiated.

A more detailed analysis of the program design was carried out during the 1966-1967 school year and reported in the Evaluation Report 1967 Volume 1. The analysis indicated that uniform program development was hampered by ambiguity in the overall statement of objectives and lack of specificity concerning the sequencing of classroom activities. Observations in several schools and interviews of program and nonprogram staff showed no significant incompatibilities between the Preprimary Program and other instructional and service programs being administered by the Board of Education. A possible relationship between participation in the program and socioemotional maturation accompanied by a marked improvement in verbal intelligence was suggested by data from socioemotional scales and the Peabody Picture Vocabulary Test.

During the 1967-1968 school year representatives of the program staff and the Office of Research worked together to develop a more specific list of objectives for the program and to further refine the socioemotional scales. Observations were also conducted in many classrooms to determine the extent to which the program as it has been defined is actually being implemented in the city's schools. This report contains the results of these activities and observations.

## Description of the Program

The Preprimary Program serves disadvantaged three- and four-year olds in a variety of ways, all of which are intended to make the children's first formal educational experiences as successful and rewarding as possible. The program provides them with a unique opportunity to play and work independently and in small groups with appropriate direction and guidance from adults who are sensitive to their immediate needs and special interests. In the process, the children are expected to begin to develop the socioemotional attitudes and the fundamental cognitive skills on which success in school is thought to depend. Participants also benefit from nutritious snacks and meals, access to diagnostic health services, and excursions designed to further acquaint them with people, places, and things in the neighborhoods and the city in which they live. Parental involvement in the instructional program and in special weekly meetings is actively encouraged.

Potential enrollees are identified in qualifying neighborhoods by school community agents and screened at each school by a selection committee usually consisting of the agent, the preprimary teacher, and the school principal. Final selection is made on the basis of need defined in terms of such criteria as: instability of family income or extremely limited family income, a one-parent family, a large family, three or more preschool-aged children in the family, a working mother, a child being raised by an older person, chronic illness or a history of learning problems in the family, dilapidated housing, crowded living conditions, and other conditions which suggest deprivation and a need for compensatory education. A limited number of children with physical, emotional, or mental handicaps are usually also accepted.

Preprimary units are ordinarily housed in existing school buildings or in adjoining demountable classrooms. In some cases, however, they occupy space made available to the Board by neighborhood service and religious organizations.

Each preprimary classroom unit is staffed by a teacher, an aide, and usually one or more volunteer workers. Recently an additional aide has been assigned to a number of units to help prepare and serve snacks and meals.

A few preprimary teachers are specialists in child development or early childhood education, but the majority are women with degrees in other fields who have had experience working with children. All teachers

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receive preliminary and in-service training in sociology, psychology, child development, and in how to make creative use of musical and/or artistic skills. Special sessions were held during the 1967-1968 school year to acquaint new teachers with appropriate ways of conducting parents' meetings and home visits. Continuing seminars in sociology of poverty, mental hygiene, child development, and program skills were also presented.

Teacher aides are expected to have a high school education and to live in the neighborhood served by the school. They help teachers make the necessary preparations for various classroom activities, perform housekeeping duties, and assist children and oversee their activities under the teachers' supervision. A number of classes also benefit from the services of one or more volunteers or interns from educational training institutions in the city. To the extent that these people are able to reach out to children who need a "special lap" or an "encouraging hand," they perform an invaluable function in busy preprimary classrooms.

In addition to classroom personnel, the program is served by an auxiliary staff made up of an itinerant story-teller, an art consultant and a team of eurhythmics instructors. The art consultant does not deal directly with children, but serves as a resource person from whom teachers can get advice about appropriate materials and activities. The eurhythmics instructors, on the other hand, visit preprimary classrooms twice each week. Equipped with rhythm instruments and

puppets, these versatile musicians teach the children to listen to music and to follow the directions inherent in it. Most children seem to welcome the brief musical interlude in their daily schedule of activities. In the process they develop improved bodily coordination and learn to discriminate among various rhythms in both music and the spoken word.

Preprimary classes are organized around a curriculum that has been built up over the years in the best kindergartens, nursery schools, clinics, and day care centers across the country. A concerted effort is being made in the Pittsburgh Public Schools, however, to refine the content, if not the form, of many of the prescribed activities to meet the special needs of the three- and four-year olds from disadvantaged neighborhoods.

Preschoolers attend classes in groups of not more than 20 for half a day four days a week throughout the school year. Fridays are generally used for parents meetings, in-service training for teachers and aides, home visits, and record keeping.

A typical day usually begins with breakfast or lunch, depending on the time of day. This is followed by a free-play period in which the children avail themselves of standard materials and facilities including unit blocks, large muscle equipment, books, table games, creative art materials, a housekeeping corner containing child-sized furniture and appliances, and a dress-up corner well stocked with a variety of hats

and other kinds of wearing apparel. After cleanup, in which children often help to put the room in order, and toileting, the children sit down to a specially prepared snack which supplements breakfast or lunch. The snack consists of cookies and milk, fruit with cheese, or a special treat when it is someone's birthday or a holiday. In addition to providing the preschoolers with a much needed dietary supplement, meals offer a welcome quiet time in which children can exchange ideas with the teacher and the other children, learn new words, and otherwise expand their verbal and reasoning skills.

Immediately following the snack, the children generally gather around a teacher, sitting either in a semicircle of chairs or Indian fashion on the floor for a story, group singing, or finger play. Following this there may be a period in which conversation is encouraged, perhaps with the teacher presenting and discussing a new or familiar object and asking the children questions about it. The children then busy themselves singly or in small groups with the equipment they were using earlier. Some time is usually devoted to supervised play on balancing boards, climbing equipment, and tricycles, either in the classroom itself or at an outdoor play space when one is available.

Regular activities are supplemented and enriched by occasional neighborhood walks, trips to nearby parks or the zoo, and visits to other places considered worthwhile for preschool children. Classrooms are simply furnished to create an uncluttered atmosphere. They are

tastefully decorated with pictures, paintings, and other graphics selected and positioned so as to further stimulate the curiosity and imaginations of the children.

## Quality of Program Design

The comprehensiveness and specificity of the original Preprimary Program definition were first questioned in May 1967 by a panel of program and evaluation staff members and an early learning and development specialist. The panel concluded that the definition was too general to be of much use as a basis for further program evaluation and development. More specifically, it recommended that objectives for the program be spelled out in more detail, and that the relationship between those objectives and the various classroom activities be made more explicit.

During the 1967-1968 school year, representatives of the program staff and the Office of Research worked together to develop some fairly specific behavioral objectives for the program. A committee of preprimary teachers refined the existing list of objectives, which dealt primarily with socioemotional adjustment, and generated a number of additional statements about physical development and coordination and the acquisition of characteristics and skills needed for academic learning. The nature and purposes of supplementary activities designed to promote and to safeguard children's physical health and to foster parental interest

and involvement in the instructional program were also clarified. (A copy of the updated program definition is contained in Appendix B.)

The current list of program objectives includes a number of statements describing physical, socioemotional, and a few of the cognitive attributes which preprimary teachers feel disadvantaged children must develop if they are to have a chance to succeed in school. Thirteen of these attributes have also been incorporated into a rating scale which teachers can use to diagnose the strengths and weaknesses of individual children in the four areas of development to which the program is designed to contribute. (The Preprimary Children's Rating Scales and directions for their use are contained in Appendix C.)

Each of the attributes on the scale has been further defined in terms of five sequential steps representing a progression from little or no development of related characteristics to a level of development considered appropriate for children about to enter kindergarten. A step has also been taken towards the establishing of performance criteria, or norms of accomplishment, on the basis of which the success of the program can be judged.

Informal conversations with teachers and the results of a testing program (described in greater detail elsewhere in this report) indicate that more work needs to be done on those sections of the definition dealing with the development of preacademic or cognitive skills. Neither the program definition nor the operating program presently

addresses itself to this problem in a very sustained or systematic fashion. Relevant objectives are limited in scope and rather vaguely defined. In the absence of carefully thought-out and empirically tested curriculum sequences, teachers have no alternative but to proceed with casually or intuitively devised sequences.

## Program Operation

### The Observation Schedule

A series of observations were made in 20 preprimary classrooms during the 1967-1968 school year in an effort to determine whether or not the program is being implemented in a manner consistent with the intent of program staff as expressed in the program definition. The observations were focused on the behavior of classroom personnel over two representative one-hour periods. The frequency and kinds of adult/child interactions that took place were singled out for special attention.

The decision to look at this aspect of the operating program was based on two considerations: (1) individualization of attention is repeatedly mentioned as a distinguishing feature of the child-centered Preprimary Program, and (2) members of the program staff insist that the way classroom personnel guide the learning activities of children is as important a determinant of what children derive from the experience as the actual content of the activities themselves.

Preprimary teachers see themselves as catalysts or enablers rather than instructors. They describe their task in general terms as one which involves "structuring the classroom environment in such a way as to enable children to participate in a series of successful learning experiences" and "reinforcing the learning that takes place" in ways appropriate to the age and background of the children involved.

A system of interaction analysis with which to examine the actual classroom behavior of teachers and their aides was developed through formal and informal observations in a number of preprimary classrooms, conversations with members of the program staff, and a review of the literature on observation techniques. (See Appendix D for a complete description of the observation schedule.) The instrument was pretested for reliability by independent observers in six preprimary classrooms during the latter part of January 1968 and administered twice in 24 other classrooms over a four month period beginning on February 1, 1968. Time and class size were held constant as far as was possible. On observation days classes in which more than three adults or less than 10 children were present were dropped from the list of units subjected to summary analysis.

Findings of the Observation Schedule

Observations showed that there was considerable variation in the amount of adult/child interaction in preprimary classrooms. It was also

found that three different ways of guiding children's learning activities were being used. A more detailed report of the findings follows.

The amount of time teachers and aides spent interacting verbally with children (individually or in groups) varied from one-third of the time in one classroom to nearly three-fourths of the time in another. Verbal interaction with individual children varied from one-fourth of the time in one classroom to almost one-half of the time in another. The average teacher-aide team spent 30 percent of its time interacting verbally with individual children, 25 percent of its time interacting with two or more children, and the remaining 44 percent of its time making arrangements for and supervising classroom activities.

Verbal interactions between adults and children are described in the Preprimary Program definition as being primarily of two kinds--facilitating and reinforcing. These two general categories have been further divided into subcategories on the basis of information derived from classroom observations and discussions with members of the program staff. Facilitating behaviors are those which teachers use to help structure the environment in which learning takes place. For the purpose of the present analysis, eight of the observation categories are facilitating behaviors: (1) giving directions or instructions, (2) providing information or description, (3) suggesting or encouraging, (4) dissuading, (5) reading, (6) singing, (7) leading a finger play or some other group activity or exercise, and (8) playing a vocal role as in dramatic play.

Reinforcing behaviors are those which reinforce the learning that takes place. There were six categories of reinforcing behaviors: (1) rebuking, (2) comforting or consoling, (3) approving or praising, (4) expressing interest in something a child is doing, (5) asking questions, and (6) answering questions.

Sixteen of the 20 teacher-aide teams observed utilized a balanced combination of facilitating and reinforcing behaviors. The behavior of three teams was predominantly of the facilitating variety and that of one team almost exclusively of the reinforcing type. In effect, three different ways of guiding children's learning activities were observed. To the extent that program staff is of the opinion that a judicious mixture of facilitating and reinforcing behaviors is preferable to an over-reliance on one or the other, it may be said that, in most cases, teachers and aides are exerting influence on the learning situation in a manner which is consistent with the intent of the program. Since the program definition does not actually specify what balance is desirable, it should be expanded to specify the circumstances and conditions under which each kind of behavior is appropriate. In addition, it should spell out what kinds of learner behaviors should be reinforced and should suggest alternative ways of doing so for different types of children.

Observations were made in some units before and after the introduction of food aides during Spring 1968. The food aide handles cooking and other duties related to the food program thereby enabling the teacher

and aide to spend more time interacting with children. The observer attempted to determine whether or not the presence of the food aide made any difference to the adult/child interactions. In some cases a small increase in the number of interactions was observed; in others no such increase was recorded. These findings suggest that the program staff could benefit from further training in the effective use of food aides and in how to interact with children.

## Program Effectiveness

In order to determine the impact of the Preprimary Program on disadvantaged children sample groups of students enrolled in the program have been carefully studied since the Office of Research first became involved in its evaluation two and one-half years ago. Although the samples themselves have been small, they have been randomly drawn and are, therefore, thought to be reasonably representative of the entire preschool population.

Data from Peabody Picture Vocabulary Tests administered in 1965, 1966, and 1967 indicated a marked improvement in verbal intelligence among children who participated in the program. In 1965 the PPVT was administered to a sample of 203 children who showed below average verbal functioning (mean I. Q. 85. 2). One year later, after 12 to 20 months in the program, the same children scored from eight to 16

points higher on the same test. The mean I. Q. the second time the test was administered was 99. 7.

To determine the stability of improvement in I. Q., the PPVT was administered again in 1967. It is noteworthy that the general improvement in I. Q. first seen after one year in the program was maintained. The mean I. Q. in 1967 was 100. 5.

Data collected during the 1966-1967 school year using the original socioemotional rating scales and in 1968 using an expanded version of the same instrument indicate that after six to 10 months in the program most participants exhibit many of the characteristics normally expected of children their age. However, these findings must be regarded as tentative since the reliability and validity of the rating scales have yet to be established.

To date there is no evidence to indicate that on standard reading readiness and first grade reading tests former preprimary students do any better than disadvantaged children who have not participated in the program. As as been suggested, this is probably due to the fact that the program as presently defined does not address itself to the development of prereading or other fundamental academic skills in a very sustained or systematic manner.

## Discussion and Conclusions

It has yet to be determined whether the Preprimary Program has

given children from disadvantaged neighborhoods the kind of "head start" they need to do well in school. A minimum of record-keeping at the elementary school level should make it possible to obtain data describing the overall performance of former enrollees in kindergarten and first grade during the coming school year. Standard test scores, attendance figures, and report cards could all conceivably be utilized as measures of actual achievement on the basis of which children who participated in the program could be compared with those who didn't.

Evaluation indicates that, for the most part, the program definition is conceptually sound and comprehensive. However the sections that describe the functions and duties of classroom personnel are not specific enough and need to be stated in greater detail. Guidelines governing individualization of instruction should be clarified and appropriate strategies for the reinforcement of various learner behaviors set forth in greater detail so that all teachers will have a better idea of when and how to reinforce the learning that takes place in preprimary classrooms.

Similarly, the development of fundamental preacademic skills warrants more systematic attention than it has been given in the past. Inputs from the Primary Education Project at the Frick School, including specific behavioral objectives and appropriate curriculum sequences, should make it possible to remedy this deficiency in the not too distant future.

# APPENDICES

## Appendix A

## PREPRIMARY CENTERS

Arlington* (2 units)
Arsenal
Baxter*
Belmar*
Beltzhoover (2 units)
Burgwin (2 units)
Clayton
Columbus*
Conroy
Cowley*
Crescent*
East Park
East Street
Esplen*
Fairywood
Fineview
Forbes
Fort Pitt
Frick (3 units)
Friendship
Gladstone
Grandview
Greenfield
Holmes
Homewood*
Larimer
Lemington (2 units)
Letsche
Lincoln
Madison (2 units)
Manchester (2 units)
McCleary
McKelvy
Miller (2 units)
Morse
Northview Heights (2 units)
Philip Murray (2 units)
Phillips*
Rogers
Schiller
Sheraden
Spring Garden
Thaddeus Stevens*
Vann (2 units)
Weil (2 units)
Woolslair*

*Housed out of school

# APPENDIX B

## Preprimary Program Definition

### GENERAL

I. Overall Statement of Objectives and Rationale for the Program

The program was designed to contribute to the physical, emotional, social, and intellectual development of three- and four-year olds from economically and culturally deprived neighborhoods in such a way as to improve their chances of succeeding in school.

II. Description of Scope (as of April 1968)

A. Number of Pupils and Schools Involved

There are 58 operating units attached to 46 elementary schools with a total enrollment of 2073 children.

B. General Description of Staff

1. Program coordinator (1)
2. Assistant coordinators (2)
3. Teachers (59)
4. Aides (59)
5. Food aides (15)

OUTCOMES

I. Major Objectives--changes expected to occur in program participants as a result of the program. There are two types of major objectives.

A. Terminal Objectives--behaviors exhibited by each participant at the end of the program which demonstrate his successful completion of the program

1. The child exhibits improved muscle control and coordination:

a. He makes more complex use of large muscles.*#

b. He shows greater dexterity in the use of small muscles.*#

c. He is reasonably self-sufficient in a number of basic manipulative skills including buttoning, dressing, washing, and eating.#

2. The child develops an improved self-image and emotional security:

a. He pursues activities independently.#

b. He controls his emotions in frustrating situations.#

c. He adapts to changes in routine.#

d. He develops an awareness of himself--learns his name, what he looks like, and what some of his abilities are.

3. The child becomes better adjusted socially:

a. He accepts the school environment.#

b. He relates to others and participates in group activities.#

c. He shares objects and affections.#

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*The program seeks to augment or enhance these behavioral manifestations of normal growth processes.

#These objectives are measured by the Children's Rating Scales.

d. He fends for himself in his dealings with others.#

e. He develops a trusting relationship with adults.

4. The child acquires a number of the basic skills, attitudes, and understandings necessary for success in school:

a. He shows signs of a longer attention span.*

b. He exhibits a greater awareness of, and interest in, people, places, and things in his own environment.#

c. He acquires and correctly uses a larger, more functional, school oriented vocabulary.

d. He is able to describe personal experiences and incidents in songs and stories which he has heard.#

e. He begins to order, compare, differentiate, classify, and describe objects on the basis of size, shape, color, texture, etc.

f. He uses his memory and imagination to:

(1) Remember simple songs and stories

(2) Express himself through role playing and fantasy exploration

(3) Express himself with paints, crayons, and other art materials

g. He acquires some familiarity with numbers and the concepts of counting, time, and space.

5. The child benefits from auxiliary programs designed to improve his nutritional and medical health.

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*The program seeks to augment or enhance these behavioral manifestations of normal growth processes.

#These objectives are measured by the Children's Rating Scales.

B. Ultimate Objectives--the long-range goals of the program. These are objectives to which the program hopefully contributes, but for which it does not have sole responsibility.

1. The child will have a better chance of succeeding in school.

2. The child will develop physically, emotionally, socially, and intellectually.

II. Enabling Objectives--the services which the student receives which enable him to accomplish the major objectives

The following services are designed to augment and safeguard the physical condition of each child in the program:

A. The child receives carefully prepared snacks and meals designed to provide him with at least one-third of his daily food requirement and rich in protein, vitamin C, and iron.

B. The child is introduced to a variety of foods served in a pleasant atmosphere.

C. The child receives a physical and dental examination including visual, auditory, and tuberculin tests.

D. The child is referred to appropriate medical and dental services if he requires them.

III. Other Benefits--benefits expected to accrue to other than program participants as a result of the program

Mothers of children in the program benefit from attending meetings which allow them to:

A. Exchange ideas and opinions about problems and concerns

B. Ask questions about their children and child development in general

C. Develop a more positive image of the school

D. Develop trusting relationships with school personnel

E. Increase their awareness and appreciation of community facilities and resources

F. Learn useful and recreational handicrafts (darning, mending, needlework, etc.)

IV. Criteria for Successful Completion of or Removal from the Program

Children are generally released after two years in the program. Exceptions can be made for a variety of reasons including the following:

A. Extreme inability to deal with the demands of the classroom environment

B. Inability to cope with frustrations and changes in routine

C. Extreme lack of physical or emotional self-control

D. Extreme lack of self-confidence, manifested in frequent displays of immaturity or hostility

E. Poorly developed basic cognitive skills, as evidenced by inability to describe ideas or experiences in a logical manner and to generalize on the basis of experience

ANTECEDENTS

I. Participants

A. Selection Characteristics--the criteria that are used to determine who shall participate in the program

The selection of participants follows these guidelines:

1. An unstable or extremely limited family income

2. A one-parent family

3. A large family

4. A one-child family or an isolated child

5. A family having three preschool children

6. A working mother

7. Chronically ill parents

8. Poor housing or crowded living conditions

9. A family history of learning problems

10. Language disabilities or late development of language skills

11. Any other condition that suggests deprivation and indicates the need for compensatory education

B. Entering Behaviors--characteristics of participants (other than selection characteristics) which are related to performance in the program

1. Physical

a. Children begin to make more extended use of large muscles.

b. Children make extremely limited use of small muscles.

2. Socioemotional

Children are often burdened by feelings of personal insecurity, have little self-esteem, and as a result:

a. Seldom initiate activities

b. Withdraw passively or react aggressively when asked to accept restraints

c. Are threatened by new situations and authority figures

d. Mistrust adults and other children

e. Have difficulty relating to others, learning to work and play with other children

f. Are unable to work and play independently for any length of time

g. Do not know how to seek and/or cope with help and direction from adults

3. Intellectual

   a. Children have a very short attention span.

   b. Children seem to lack curiosity.

   c. Children have very limited vocabularies.

   d. Children have had few opportunities to express inner, creative impulses.

4. Health and Medical

   Children entering the program are generally undernourished, and as a result:

   a. Have low resistance to disease

   b. Tire easily

   c. Are limited in terms of the physical resources necessary for learning

II. Staff--qualifications with respect to specific positions

| Staff Member | Professional Qualifications | Personal Qualifications |
|---|---|---|
| Program Coordinator | 1. Post-graduate degree<br>2. Experience in early childhood education | Not stated at this level |
| Assistant Coordinators | 1. College or university degree in education<br>2. Teaching experience | Not stated at this level |
| Teachers | 1. College or university degree in education or its equivalent<br>2. Knowledge and understanding of the needs of and special skills required to teach three- and four-year olds | 1. Patience<br>2. Adaptability<br>3. Understanding<br>4. Common sense |

| Staff Member | Professional Qualifications | Personal Qualifications |
|---|---|---|
| Aides | 1. High school education<br>2. Residence in neighborhood served by the school<br>3. Recommendation of the Community Action Program agent | Common sense |
| Food Aides | Same as for aide | Same as for aide |

III. Support

A. Administrative Support--administrative personnel who cooperate in carrying out the Preprimary Program

Principals in the individual schools support the program in the following ways:

1. By providing supplementary advice and assistance

2. By supporting teachers in their dealings with parents

3. By expediting the procurement of necessary materials and supplies

B. Human Resources--non-administrative and non-staff personnel whose contributions and cooperation are necessary to the operation of the program

| Role | Functions |
|---|---|
| Community Agent | 1. Provides an additional communication link between the program and the neighborhood<br>2. Helps enroll children using OEO criteria<br>3. Follows up absences<br>4. Arranges trips<br>5. Provides a male image to which children can relate both in and out of school |

| Role | Functions |
|---|---|
| Eurhythmics Instructor | 1. Teaches children to listen to music and to follow directions inherent in it<br><br>2. Improves body coordination and aural discrimination |
| Art Consultant | Advises teachers on classroom art activities and selection of materials |
| Special Consultants | Provide medical, dental, mental health, speech, nutritional, and social services (advice on special problems, instruction, referral, follow-up services) |

C. Media--the materials, supplies, and equipment required for program activities

1. Art Materials

a. Aprons or smocks
b. Clay, clay boards, and play dough
c. Crayons and chalk
d. Easels
e. Manila paper, newsprint, and construction paper in a variety of colors
f. Paints and brushes
g. Paste and paste brushes

2. Floor Play Materials

a. Balance boards
b. Hardwood blocks of various shapes and sizes
c. Ladder box or some other kind of climbing apparatus
d. Rubber, plastic, or wooden figures of farm or zoo animals, and community workers
e. Wooden trucks, cars, boats, and trains that can be manipulated by a child's feet

3. Food Service Equipment

   a. Cooking utensils, and other items needed for basic cooking
   b. Cups and/or small unbreakable glasses
   c. Plates and dessert dishes
   d. Serving trays
   e. Utensils suitable for use by small children

4. Household and Dramatic Play Equipment

   a. Dolls, doll clothes, doll carriages, and doll bed or crib
   b. Dress-up clothes and hats
   c. Full length mirror
   d. Furniture for household play

5. Picture Books--appropriate to the age and special interests of young children

6. Science and Special Projects Equipment

   a. Aquariums or terrariums
   b. Cages for pets
   c. Magnets
   d. Magnifying glass and measuring cups and spoons

7. Table Materials and Games

   a. Hammer and nail sets
   b. Inlay puzzles
   c. Matching games and color cones
   d. Pegs and peg boards
   e. Small blocks and interlocking, snap-in beads

8. Water Play Equipment

   a. Plastic bottles and cups
   b. Sand
   c. Soap and soap flakes

9. Miscellaneous and General Supplies

   a. Hand tools
   b. Phonograph and records

D. Facilities

1. Bathroom

2. Cooking facilities (range and refrigerator)

3. Cabinets for storage of supplies, art materials, and groceries

4. Room dividers

5. Shelf space for storage and display of small toys and blocks

IV. Time Constraints

Children participate in the program for half a day, four days a week, for two school years.

PROCESS

I. Participant Activities--the day-to-day program activities that will ultimately lead to the achievement of objectives

The kinds and combinations of activities presently being used in Pittsburgh's Preprimary Program vary according to the ingenuity and inventiveness of the program staff. For the purpose of description, however, most of the activities can be categorized as follows:

| Category | Purpose | Materials or Activities |
|---|---|---|
| Cognitive | To develop the child's willingness and ability to listen attentively and speak effectively<br><br>To help the child begin to order, classify, and describe objects in terms of size, shape, and color | All activities in which the child is encouraged to speak correctly and to use language skills to solve problems |

| Category | Purpose | Materials or Activities |
|---|---|---|
| Creative experiences | To develop sensory and aesthetic awareness<br><br>To facilitate self-expression<br><br>To promote imaginative thinking | Cutting and pasting materials<br><br>Paints, easels, and crayons<br><br>Modelling clay |
| Food Service | To improve the nutritional health of children in the program | Breakfasts, lunches, and mid-morning and mid-afternoon snacks |
| Imitative or dramatic play | To enable children to express themselves through role playing and fantasy exploration | Doll tub<br>Housekeeping corner<br>Play dough |
| Manipulative or constructive | To develop small muscles and improve muscle and eye-hand coordination | Beads<br>Puzzles<br>Scissors and small hand tools<br>Small blocks<br>Table games |
| Motor or large muscle | To develop large muscles and motor skills | Climbing and balancing equipment<br>Jumping ropes<br>Large balls<br>Large blocks<br>Wheel toys, bicycles, wagons, trains, and trucks |
| Sensory | To develop sensory perceptions | Clay and play dough<br>Paints<br>Sand<br>Water and soap |
| Other activities | To broaden children's awareness and understanding of people, places, and things in the world around them | Neighborhood walks and trips |

## II. Staff Functions and Activities

### A. Staff Functions and Duties with Respect to Specific Positions

| Staff Member | Function | Duties |
|---|---|---|
| Program Coordinator | Coordination of the Preprimary Program with other programs and of the many preprimary units | a. Provides liaison with central office staff and with experimental programs<br>b. Adapts and develops instructional guidelines (with assistant coordinators)<br>c. Orients and trains new teachers and other staff<br>d. Audits petty cash reports<br>e. Assigns personnel (with assistant coordinators) |
| Assistant Coordinator | 1. Supervision of classroom personnel<br>2. Supervision of mothers' programs and eurhythmics programs | a. Visits schools and assists teachers with problems<br>b. Reads and comments on teachers' logs<br>c. Guides and evaluates case studies of individual children (with coordinator)<br>d. Develops guidelines and makes suggestions to help teachers use available resources effectively |

| Staff Member | Function | Duties |
|---|---|---|
| Teacher | 1. Planning and implementation of a series of successful learning experiences | a. Structures an environment conducive to experimental learning<br>b. Provides reinforcement of the learning experiences as needed (especially socially acceptable behaviors and adherence to classroom routines) |
| | 2. Communication of program to others | a. Talks with parents<br>b. Interprets children's behavior |
| Aide | Provision of general services to aid teacher | a. Prepares materials for various activities<br>b. Performs general housekeeping tasks<br>c. Helps with record keeping<br>d. Assists children and oversees their activities under supervision of teacher |
| Food Aide | Provision of food services | a. Prepares snacks and meals<br>b. Helps serve snacks and meals<br>c. Cleans up after snacks and meals |

B. Intra-staff Communication and Coordination

1. The Coordinator and the two Assistant Coordinators share an office and, therefore, communicate informally.

2. Communications between the coordinators and the teachers include:

a. Classroom visits by a coordinator at least once a month

b. Exchanges of requests, suggestions, ideas, and opinions by telephone or memorandum

3. Orientation sessions are held for all teachers at the beginning of each school year.

4. New teachers have in-service training for nine half days in the fall.

5. Experienced teachers choose one or two areas for further in-service training from among the following:

a. Mental hygiene

b. Child development

c. Skills (storytelling, art, music)

d. Working with people from different cultures

e. Special sessions devoted to meeting parents, making home visits, etc.

C. Communication Between Program Staff and Others

1. Parents and teachers attend weekly meetings.

2. Teachers in some cases attend elementary staff meetings in the schools to which they are assigned.

3. Teachers maintain informal contact with other elementary teachers, especially kindergarten teachers.

# APPENDIX C

# PREPRIMARY CHILDREN'S RATING SCALES

## Purpose

To record the levels of physical, socioemotional, and cognitive development at which preprimary children are functioning at regular intervals during the school year.

## Rationale

To provide preprimary teachers with a diagnostic tool with which to regularly assess the strengths and weaknesses of individual children in the areas of physical, socioemotional, and cognitive growth.

To provide the evaluation staff with quantifiable data that can be used to refine the antecedents section of the program definition (student entering behaviors) and to measure some of the changes that take place in children as they move through the Preprimary Program.

## Focus

The focus of this instrument is to be the behavior of preschool children as seen by their teachers.

## Sample Size

The entire preschool population (approximately 2000 children)

## Proposed Analysis

Descriptive (standard measures of central tendency and dispersion); a series of two way analyses of variance (between schools and between times) on each of the 17 items that make up the scales.

## Administrative Details

Teachers will be asked to rate the children in their classes three times each school year, preferably once early in the fall, once in the winter, and once in the spring.

## Description and Directions for Using the Preprimary Children's Rating Scales

The Preprimary Children's Rating Scales contain 17 items describing a number of skills and characteristics which teachers feel children should develop before they start school. Each of the items is further defined in terms of five sequential steps (lettered a-e) representing a progression from little or no development of the relevant skill or characteristic to a level of development considered appropriate for five-year olds. These statements generally consist of specific examples of behavior characteristic of a certain level of development. Because each child is unique, it is conceivable that his or her level of development may be <u>most accurately</u> described by examples from more than one level. For the purposes of comparison, however, we ask that you select one statement only--the one which <u>best</u> describes the level of development at which the child is functioning.

When using the scales to rate the children in your classes, please adhere to the following directions:

1. Make out one rating form for each child in your classes.

2. To record your judgments about a child, simply select the lettered statement under each item which best describes the level of development at which the child is functioning. Then blacken the corresponding space on the child's rating form.

3. Be sure to select one (and only one) statement under each item on the scale. If in doubt about which statement to select, make the best judgment you can. Please do not leave any items blank.

4. Be as objective as possible in rating each child.

CHILDREN'S RATING SCALES
PREPRIMARY PROGRAM

1. Overall Physical Development

   Compared to the other children in his class, this child's overall physical development is:

   a. Much worse than average
   b. Worse than average
   c. Average
   d. Better than average
   e. Much better than average

2. Emotional Security

   Compared to the other children in his class, this child is:

   a. Much less secure than average
   b. Less secure than average
   c. Average
   d. More secure than average
   e. Much more secure than average

3. Social Adjustment

   Compared to the other children in his class, this child is:

   a. Much less well adjusted than average
   b. Less well adjusted than average
   c. Average
   d. Better adjusted than average
   e. Much better adjusted than average

4. Cognitive Development

   Compared to the other children in his class, this child's grasp of basic cognitive skills is:

   a. Very poor
   b. Poor
   c. Average
   d. Good
   e. Very good

5. Motor Skills (Large Muscles)

This child:

a. Exhibits poor coordination and uncertainty when walking
b. Shows lack of confidence and agility in running
c. Runs, jumps, and climbs with some difficulty
d. Runs, jumps, and climbs with confidence and good coordination; uses alternate feet climbing stairs
e. Runs, jumps, climbs, hops, skips, throws and catches a ball (5" in diameter) with confidence and good coordination; uses alternate feet going up and down stairs

6. Manipulative Skills (Small Muscles)

This child:

a. Makes extremely limited use of small muscles; has difficulty picking up crayons and holding a paint brush
b. Puts together snap-it blocks, pop beads, simple wooden (insert) puzzles; uses large crayons and paint brushes
c. Strings large wooden beads, puts pegs in a peg board, puts together puzzles with two or more interlocking pieces; uses small crayons
d. Unbuttons and unzips clothing; uses a pair of scissors to cut; hammers large nails
e. Ties his shoes, buttons his coat, engages a jacket zipper; sews with wool; hammers small nails

7. Initiative

This child:

a. Never initiates games or activities
b. Seldom initiates activities
c. Occasionally initiates activities
d. Usually initiates own activities
e. Pursues activities independently; often initiates group games and activities

8. Emotional Control

This child:

a. Withdraws completely when asked to accept restraints
b. Reacts in a physically aggressive manner (hitting, excessive crying)
c. Responds verbally
d. Sometimes accepts restraints
e. Accepts restraints without an emotional display

9. Adaptability

This child:

a. Is unable to make the transition from one everyday activity to another
b. Makes the transition reluctantly
c. Is upset by unexpected changes in routine (confused, disoriented)
d. Adapts with difficulty to new situations (e.g., presence of a new teacher)
e. Adapts quickly and easily to new situations

10. Acceptance of School Environment

This child:

a. Refuses to enter room
b. Enters room reluctantly; needs encouragement
c. Enters room; stands on sidelines
d. Enters room willingly; can be coaxed into some kind of activity
e. Enters room willingly; seeks out an activity on his own

11. Participation in Group Activities (other than eating, toileting)

This child:

a. Does not participate in any activities
b. Plays alone and has little or no communication with other children (solitary play)
c. Plays near other children but not with them (parallel play)
d. Relates easily to and participates actively in activities with one or two others
e. Relates easily to a group and participates actively in most group activities

12. Sharing

This child:

a. Rejects objects and attentions of others
b. Refuses to share materials, toys, and attentions with classmates
c. Has to be asked frequently to share materials and to take turns
d. Occasionally has to be reminded to share materials and to take turns
e. Shares objects and attentions freely with classmates

13. Independence

This child:

a. Yields submissively to the aggressive demands of others
b. Depends on adults for support in dealings with others
c. Occasionally looks to adults for help in dealing with others
d. Generally functions independently but will seek help in an emergency
e. Functions independently, with or without supervision

14. Perseverance

This child:

a. Has no apparent interest in simple, finite tasks (e.g., puzzles)
b. Briefly attempts to put puzzles together
c. Completes puzzles with help or encouragement from an adult or another child
d. Completes puzzles on his own
e. Completes puzzles and puts them away without having to be asked

15. Curiosity

This child:

a. Takes no apparent notice of new objects or changes in the environment
b. Notices new objects and may examine them briefly and/or remark about them
c. Shows more sustained interest; examines and inspects objects more closely
d. Shows prolonged interest; gives objects careful scrutiny
e. Shows recurrent interest; goes back to look at and inspects new objects some time after they first come to his attention

16. Memory

This child:

a. Remembers his given name
b. Remembers basic routines, where things are
c. Remembers transitions from activity to activity
d. Remembers simple songs and nursery rhymes
e. Can tell or act out a simple story from beginning to end

17. Verbal Ability

This child:

a. Makes no attempt at verbal communication
b. Uses single word responses only
c. Combines words to form phrases or rudimentary sentences
d. Uses complete sentences to express himself
e. Exhibits unusual facility in his use of language (e.g., makes up rhymes, plays word games)

# APPENDIX D

# PREPRIMARY STAGE II OBSERVATIONS SCHEDULE

## Purpose

To determine the frequency and kinds of adult child interactions that take place in preprimary classrooms.

## Rationale

To ascertain the extent to which adults interact with children in the manner described in the program definition.

## Focus

The focus of these observations is to be the behavior of classroom personnel over a one-hour time period. To facilitate data collection and analysis, various kinds of behaviors have been categorized in terms of their direction and apparent purpose. The list of behaviors itself is a product of formal observations carried out in June 1967 and informal visits to preprimary classrooms made in the early part of the 1967-1968 school year. The categories are an adaption of classification systems developed by various researchers including Amidon and Flonders (1967) and Rockwell and Bittner (1967).

## Description of Categories

The Preprimary Stage II Observations Schedule focuses attention on the ways in which adults behave in preprimary classrooms. In order to accommodate all forms of behavior, three very general categories have

been drawn up: (1) Interaction with children, (2) Interaction with others, and (3) No interaction (individual activity). The two major interaction categories are further divided into verbal and nonverbal components.

A summary of the several categories, with brief definitions for use by observers, follows:

Procedures for Recording Observations

The observer should make an entry on the data sheet provided at two minute intervals over the space of an hour. The entry itself should be at the category number of the behavior observed. These numbers are recorded in sequence in the appropriate spaces on the data sheet. At the end of the hour, there should be 10 entries for each adult whose behavior was observed.

Sources

1. Amidon, Edmund J. and Flanders, Ned A., The Role of the Teacher in the Classroom Minneapolis: Association for Productive Teaching, Inc. 1967.

2. Rockwell, Robert E. and Bittner, Marguerite L., "Rating Teachers and Aides," Young Children XXI, No. 6, September 1967.

Preprimary Stage II Observations Schedule
Summary of Categories for Interaction Analysis

| | | |
|---|---|---|
| | Verbal (general) | 11. giving directions or instructions<br>12. providing information or description (demonstrating)<br>13. suggesting or encouraging<br>14. dissuading (limiting)<br>15. rebuking |
| Interaction with children | Verbal (supporting) | 21. comforting or consoling<br>22. providing verbal approval or praise<br>23. commenting about, expressing interest in something the child is doing<br>24. answering child(ren)'s questions<br>25. asking questions intended to elicit a verbal response |
| | Verbal (other) | 31. reading to children<br>32. singing with children<br>33. leading finger play, other group activity or exercise<br>34. playing a vocal role as in dramatic play |
| | Nonverbal | 41. listening<br>42. watching (child wants to be watched)<br>43. physical contact (comforting)<br>44. physical contact (limiting)<br>45. physical contact (helping) |
| Interaction with others | Verbal | 51. discussing plans or activities<br>52. discussing a child or children<br>53. giving directions or instructions<br>54. making suggestions<br>55. social |
| | Nonverbal | 61. preparing plans or activities<br>62. cleaning up<br>64. helping with a problem situation |
| No Interaction | | 71. overseeing activities (general supervision)<br>72. planning or preparing activities, or cleaning up after<br>73. keeping records<br>74. personal<br>75. unoccupied |

There is no scale implied by these numbers. Each number is classificatory--it designates a particular kind of behavior. To write these numbers down during observation is to enumerate not to judge a position on a scale.

# PREPRIMARY STAGE II OBSERVATIONS SCHEDULE

School _____ Unit _____

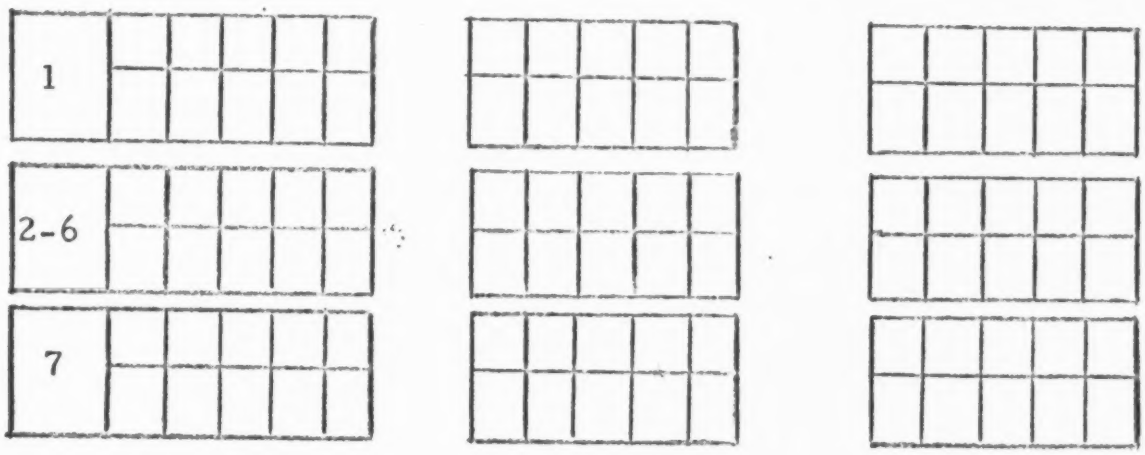
Address _____ Telephone _____

Day of Week _____ Visit # _____ Hour of observation _____

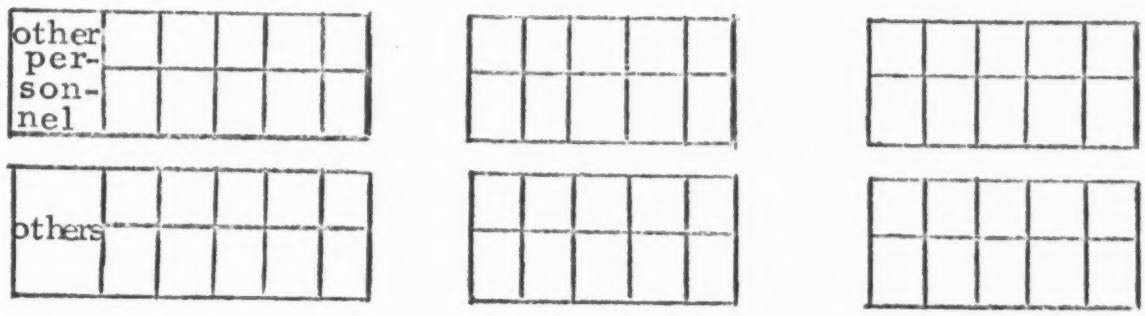
---

Teacher Aide Paraprofessional

1. Interaction with Child(ren)




2. Interaction with others




3. No interaction